A Pan-Canadian View- Telehomecare Strategies & Success

Presenters:
- Krista Balenko
- Kimberly Ghaney
- Dan Bond
- Jerome Slaney (Telehomecare Patient)
Plan for this session…

• Telehomecare Overview & Canadian Experience

• Eastern Health Program Showcase- Clinical, Technology and Integration Perspectives

• Patient Experience
What is Telehomecare? (also called Remote Patient Monitoring)

• Connects patients in their home to their provider(s) using digital tools

• Patient information is electronically transmitted to the provider(s)

• Provider(s) can monitor, review, coach, modify plans
Island Health Video- Home Health Monitoring Program
Why Telehomecare?

• **EMPOWER** patients and caregivers to manage health at home
  • Digital monitoring alerts to providers

• **IMPROVE** quality of life

• **REDUCE** hospital visits and other uses of the health care system
  • Automates feedback so that unnecessary calls are avoided
What Patients have told us…

“This is an excellent program, and I am planning to continue with my own equipment. I am hoping my continued monitoring will help me avoid another crisis.”

“I looked forward to my weekly call from Chelsea, whom I never met. She was exceptional.”

“Monitoring made me aware of my body better. I quit smoking 1/3 of the way through the Program and saw a huge difference. I saw my blood pressure go up when I drank coffee, so now I drink less coffee. So monitoring helped me change my behavior and get into a routine every day.”
What Providers have told us…

“This program changes lives of patients and their caregivers. The amount of gratitude we receive from patients upon their discharge is huge…” - Telehomecare Nurse

“…this is a valid program and needs to be expanded to all areas of healthcare in some way” - Telehomecare Clinician

“…[my] patient was seen at home - very important due to her limited ability and was given advice to help improve her breathing and control her COPD. Before, she would go to the hospital ER when it got severe but with the Program, she could monitor herself and start treatment early.” - Family Physician
Over 31,500 Canadians have enrolled in telehomecare programs across the country since 2010.
Telehomecare Delivers on the Triple Quadruple Aim

Patients said:
• “Being in the program allows me to better manage my own health.” (85%-98%)
• “Being in the program has made my quality of life better.” (88%-97%)

Providers AGREE:
• “The THC solution... improves the quality of care I can provide.” (81%)
• “The THC solution ... improves continuity of care.” (89%)

Experience

Outcomes

Lower Costs

Reducations in ED use: 35% - 63%
Reducations in hospitalizations: 44% - 85%

$1 invested in Telehomecare generates $4 in avoided healthcare costs

Source: Aggregate results based on BC, NL, PEI, ON project evaluations and Patient SUS results, Aggregate SUS Provider results (2018).
Observations from research

- Telehomecare effectiveness on clinical and health utilization outcomes for COPD and HF is supported by published evidence

- Success is dependent on implementation models/approaches, outcomes are comparable and sometimes better than usual care= this is a win!

- Mental Health, Cancer patient populations show promise for telehomecare growth

- High quality trials could help establish telehomecare effectiveness in other domains such as Asthma, Chronic Kidney Disease, Diabetes, Hypertension and Stroke

- Overall trend to use mobile devices, mobile health applications and leveraging artificial intelligence (not much published research)

Source: LITERATURE REVIEW ON THE USE AND IMPACT OF TELEHOME CARE PROGRAMS; Gagnon, Motulsky & Sicotte, 2018
Programs are diverse, but…

- Where are programs hosted?
  - Community
  - Hospital
  - Provincial organizations
  - Health Regions

- Who is monitoring the patient?
  - Nurses- community and hospital based
  - Community Paramedics

- Where are referrals coming from?
  - Hospitals
  - Primary Care
  - Community Care

- Existing programs share common future directions of expanding and targeting new patient populations
  - Target new patient groups- palliative, cancer, wound care, mental health
  - Expand reach of current operations
  - Investigate maintenance programs
National Lessons & Challenges

• Early and sustained provider buy-in

• Don’t underestimate effort to establish and launch a program
  • Value in planning, applying change management methodologies

• Identification and recruitment of patients is difficult and takes time, but patients love it
  • Need methods to identify which patients could benefit the most from programs

• Benefits of decreased ED visits and hospital admissions are results that are not directly accrued by the program leads/payers

• Reimbursement of virtual services
Sharing a few Success Stories…

- Island Health
- Future Health
- Ontario Telemedicine Network
- Health Prince Edward Island
Island Health Home Health Monitoring (HHM)- British Columbia

• Geographically expanded and made available across Island Health, including rural and remote areas.

• Program had 200% increase in uptake - both referrals and clients enrolled.

• Enhanced partnerships with ordering providers, acute care clinicians, and First Nations clients and clinicians.

• Clinical integration- HHM order sets in the EHR.

• Extensive evaluation showing significant positive impacts on clients and health care system.

90% of patients agreed that CPRPM improved their quality of life.

98% of patients were satisfied with the quality of care and coaching provided by the community paramedics.

86% of patients suggested their ED usage had declined while on the program which was verified with the data.

89% of patients agreed that CPRPM improved their ability to manage their condition.

Ontario Telemedicine Network (OTN) Telehomecare Program Results

64% decrease in Admissions
51% decrease in ER visits
Over to the Eastern Health Team…

• Eastern Health Program Showcase- Clinical, Technology and Integration Perspectives
Eastern Health’s Remote Patient Monitoring (RPM)

Innovative program to support active self-management of patients with COPD, Heart Failure or Diabetes Type II at home enabled by simple technology.
Eligibility Criteria

• The current criteria for assessing whether patients are eligible to be enrolled in the RPM Program are the following:
  • A physician’s clinical diagnosis of COPD, CHF, or Diabetes*;
  • Age ≥18 years;
  • ED visit or hospitalization ≥1 per year (COPD/CHF);
  • Is clinically judged to be at high risk for hospital admission by referral source;
  • Requires regular monitoring of condition by health practitioner;
  • Informed consent/willingness to participate;
  • Capable of learning/understanding instructions or has a care provider who meets this criteria;
  • Has internet or phone line available for technology and lives in a residential setting – this may include Personal Care Homes*

Malcolm McGregor, 79 – HF Patient
“One of the best parts of the program is that it bridges the gap between visits with the cardiologist – the nurse is always there”
Onboarding

Eligible patients are identified and onboarded through the following linkages:

• **Referrals**
  – From health care providers: including physicians, allied health professionals, or self-referral
  – Referral via Meditech system being developed

• **Program Linkages**
  – From HF clinic, Pulmonary Rehabilitation, acute care units, emergency departments, diabetes education centres
  – From external community stakeholders: seniors resource centre, Heart and Stroke Foundation, Lung Association, Diabetes Canada

• **Electronic Data Examination**
Leveraging Technology in Healthcare Delivery

Eastern Health is utilizing technology to deliver efficient and effective care.

Registered Nurses use the technology as a platform to:

- Assess, Intervene,
- Educate, Coach and Support

Biometric data and nursing notes are electronically sent to the patient's chart in the hospital's electronic health record (EHR) chart.
Clinician Monitoring

• Health care professionals utilize technology as a platform to provide self-management support, behavioural modification, education and support to empower the patient.

• The nurse will contact the patient to follow up on data of concern and provide intervention.

• A combination of remote monitoring and proactive coaching, support and education produces the best outcomes.

• Medication reconciliation and coaching regarding medication compliance is a key factor in positive outcomes.
Health Coaching

• The **primary RPM program** objective is to improve patients’ chronic disease management knowledge, through education and monitoring, so they can better manage their own care.

• Reinforces the health information that is provided by patient’s care providers.

• Educates on nutrition, medications, exercise, anxiety reduction, smoking cessation, etc.

• Include family and caregivers.
Program Integration

Overall Medical Direction - Dr. Pat Parfrey

Heart Failure Content Contributors
• HF clinic Nurse Practitioners
• Drs. Connors, Sussex, and Hayley
• Heart and Stroke Foundation

COPD Content Contributors
• Pulmonary Rehabilitation PT and RT
• Drs. Azher and Vidyasankar
• Lung Association

Diabetes Content Contributors
• Diabetes Clinic - DNE, RD, and NP
• Diabetes Canada
Primary Care Integration

To ensure continuity of care:
- A patient’s primary care provider (PCP) is notified of their patient’s enrollment in the RPM program.
- The RPM nurse refers a patient to their PCP if a patient issue cannot be resolved within their scope of practice, such as a prescription change.
- The RPM program sends patient summary reports to the physician on a monthly basis and on request.
- A final summary report will be sent upon a patient’s completion of the program.
Privacy and Security

• Technical and operational adherence to privacy and security laws and best practices;

• Meets compliance with all Eastern Health and provincial standards, and;

• All data is encrypted.
Program Feedback

Primary care providers, patients and survey results point to positive outcomes overall resulting from participation in the Remote Patient Monitoring Program:

This is the best care a patient can receive. It is one on one individual care. **It is the appropriate care provided by the appropriate person at the appropriate time.** From a utilization perspective, this can mean huge savings for the province by reducing MCP billings. Many issues can be handled by phone with the RN or patient. Patients see me when they **need** to see me now.

*Dr. Karen Lake*

*Family Practice, St. John’s*

My patient has never been so well controlled since joining this program. I love this program!

*Dr. Rasha Abduljabar*

*General Practitioner, Clarenville*
My life was miserable. I’d get in bed, and have to get right out again. I had to sit up to sleep, I couldn’t breathe. I had to go to ER a lot for masks for my shortness of breath. But I control it myself now, with taking my puffers like I’m supposed to, and talking to my nurse. Now, I can do the things I enjoy. The machine is the best thing, and I love talking to my nurse. My wife and son are supportive and have seen a big difference in me. The best part is when I go to bed now, I can go to sleep.
I can breathe better.
Evaluation

Hospital Utilization

- a **40.7%** decrease in hospital admissions
- a **51.1%** decrease in ER visits

Survey Responses

- the program made their QoL better: **81.7%** strongly agreed
- the program allowed them to better manage their own health: **88.5%** strongly agreed
- Survey showed **97.7%** satisfied with care received while enrolled!

“It gives you the confidence to manage your illness and helps you stay out of hospital” ~ RPM patient
Satisfaction Survey
Nov 2015 – Dec 2017

I felt comfortable using the equipment
98%
Strongly Agree

The equipment was easy to use
98%
Strongly Agree

It was easy to see and read the questions, answers and health tips
98%
Strongly Agree

If I had problems, someone was available to help me
95%
Strongly Agree
Self-Reported Outcomes Survey  
Nov 2015 – Dec 2017

As a result of being in this program:

...I am better able to manage my condition

- 88% Strongly Agree

...I have had to visit my physician or health care provider for my condition less often

- 79% Strongly Agree

...I have had to visit the ER for my condition less often

- 79% Strongly Agree
Lessons Learned

• Important to collaborate with existing programs and stakeholders in program development/recruitment
• Key success factor is the right person in the role; and the right patients enrolled
• Comprehensive communications plan is key
• Technical issues can significantly impact enrollment rates
• “Out of sight, out of mind”
• Enrollment focused on acute inpatient admissions but learned higher uptake through ED and direct referral
• Important to attempt contact with the patient for enrollment shortly after discharge (if not while in hospital)
• High incidence of undiagnosed patients using health care resources
• Exclusion of some of our higher users of acute care and emergency departments due to LTC placement
• Important to build efficiencies into the clinical model
Roadmap

• RPM to support mental health initiatives, home dialysis, high risk pregnancy, etc.
• Expand to other regional health authorities
• Integrate into existing clinical programs
• Change to Information Systems Support Model
• Full EMR Integration
Information Systems Support (ISS) Model

• Eastern Health core RPM team to provide support to existing clinical programs as the technology is integrated into practice

• Support will be provided by RPM team for:
  – Management of assets and technology
  – Program and content development
  – Onboarding and offboarding of patients
  – Ongoing education and support
Community Partnerships
Meet Mr. Slaney

Jerome Slaney
Remote Patient Monitoring Patient – Self-Reviewed
Diagnosis: COPD
St. Lawrence – Burin Peninsula

Before:
• No understanding of disease “felt lost”
• No understanding of medications or how to use them
• “steady back and forth to hospital and getting nowhere”

After:
• COPD Action Plan in place
• Educated about medications and conditions
• Confident and empowered to “advocate for myself” and “learned how to take care of myself”
• Improved quality of life
• Less ER visits

“Two of the best things were having access to my nurse every day and having access to antibiotics and Prednisone when I needed it. I know what to do to protect myself now.”
Questions?
Thank You!